ATTACHMENT 3

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State of California
The Resources Agency
DEPARTMENT OF WATER RESOURCES
Division of Safety of Dams

Certificate of Approval

This Is To Certify That, pursuant to Part 1 of Division 3 of the California Water Code, the Department of Water Resources of the State of California has found that the Richardson Dam and Reservoir, State Application Number [illegible], located in Sec. 16, Tp. 9 N, R. 12 W MD B. & M., Sonoma County, State of California are safe for the impounding of water; and the use of said dam and reservoir to impound water in accordance with and subject to the following terms and conditions is hereby authorized: Water may be impounded to Elevation 650.00, assumed datum, as shown on approved plans.

This certificate of approval supersedes every previous certificate of approval or written consent for use issued by the State of California relative to said dam and reservoir.

Witness my hand and the Seal of the Department of Water Resources of the State of California this 24th day of August 1966.

FOR THE CHIEF ENGINEER

Robert D. Jansen

Division Engineer, Reg. C. E. No. 8218

DEPARTMENT OF WATER RESOURCES
STATE OF CALIFORNIA

OR 55M

STATE OF CALIFORNIA
CALIFORNIA NATURAL RESOURCES AGENCY
DEPARTMENT OF WATER RESOURCES
DIVISION OF SAFETY OF DAMS

INSPECTION OF DAM AND RESERVOIR IN CERTIFIED STATUS

Name of Dam Richardson Dam No. 274-4 County Sonoma
Type of Dam ERTH Type of Spillway Unlined open channel primary and emergency spillways
Water is 0.2 feet above the spillway crest and 4.8 feet below the dam crest.

Weather Conditions Rain with hail during the inspection
Contacts Made Patrick Tremo and Jesus Cardines during the inspection
Reason for Inspection Periodic Evaluation

Important Observations, Recommendations or Actions Taken

As requested during the previous inspection on June 9, 2009, Mr. Tremo has removed all cattails, tule, and other aquatic growth from the upstream face waterline. Cattle are used to control grass and other non-woody vegetation along the downstream face and groins but, and as recommended and to minimize surficial damage or erosion, the cattle are fenced off from the dam whenever the embankment is wet.

The primary spillway at the right abutment is very susceptible to landslides and other forms of mass movement which can reduce or even prevent flows through the spillway. As requested, Messrs. Tremo and Cardines confirm the open and clear status of the primary spillway before, during, and following significant storm events. The emergency spillway is also checked to insure it can function as a secondary means of egress for storm flows from the reservoir.

Historic seepage remains along three distinct bands in the upper half of the downstream face, near the center left downstream groin, and along the toe of the embankment. Similar to the previous inspection, no live flow or turbidity was noted and the seepage observed is normal for the time of year and reservoir elevation. I asked Mr. Tremo to continue to monitor the seepage and to report any changes in the location, extent, degree, or quality of seepage to the DSOD.

In all regards Messrs. Tremo and Cardines have done an excellent job of managing, monitoring, and maintaining this important facility. The condition and safety of the dam has materially improved since my previous inspection.

There are no prior outstanding administrative requirements. The total class weight of 12 appears satisfactory.

Conclusions

From the known information and visual inspection, the dam, reservoir, and the appurtenances are judged safe for continued use.

Observations and Comments

Dam	The visible portions of the upstream and downstream faces, the crest, and the abutment contacts remain in satisfactory condition with no indication of surficial distress or instability. Vegetation control has improved significantly since the previous inspection and is now very good throughout the embankment. Tule, cattails, and other aquatic growth along the upstream face waterline have been removed as requested, and the remainder of the upstream face, and the downstream face and groins, are covered in ankle tall grass and other low ground cover that provides protection against erosion without hindering inspection and monitoring for seepage and other defects.

Photos taken? Yes X No
cc for Owner/Book

Inspected by J. Lowe 22 Apr 10
Date of Inspection 20 April 2010
Date of Report 21 April 2010
Sheet 1

DWR 1261 (Rev. 10/09)

INSPECTION OF DAM AND RESERVOIR IN CERTIFIED STATUS

Name of Dam Richardson Dam No. 274-4

Date of Inspection 20 April 2010

Observations and Comments

Rodent control is also satisfactory and only minor indications of burrowing activity were observed. Maintaining vegetation low throughout the year is an effective means of reducing protective habit and exposing rodents to increased predation by raptors and other predators.

Spillway

The dam has two un-lined open channel spillways. The primary spillway is located within the right abutment; the emergency spillway, located within the left abutment, also provides vehicular access to the crest of the dam.

Both spillway approaches, control weirs, and exit channels were open and unobstructed. The primary spillway abutment is very susceptible to slides and other forms of mass movement and requires frequent monitoring to ensure that it remains open and unimpeded. The emergency spillway, which is less susceptible to clogging by soil and slide debris, provides an important role as a backup means for storm flow egress from the reservoir.

Total freeboard is 5 feet; residual freeboard is 2.3 feet. Freeboard is satisfactory.

Outlet

Gravity outflow is provided by a recently installed 14-inch diameter siphon. A 14-inch gate valve provides upstream control from the crest; downstream control near the discharge is provided by an 18-inch geared head drive butterfly valve. The fully concrete lined outlet is normally pressurized.

Mr. Tremo reported that the outlet is cycled three times annually, and that the last cycling was performed on March 1, 2010. The outlet controls were not cycled during this inspection. The outlet controls were fully cycled and the siphon operated in my presence during the June 9, 2009 inspection.

Seepage

Ongoing rainfall prevented evaluation of minor seepage. The downstream face, groins, abutments and toe were free of any indication of significant seepage. Historic seepage was noted along three distinct bands in the upper half of the downstream face, near the center left downstream groin, and along the toe of the embankment. The nature of the seepage through the downstream face and left groin is suggestive of increased hydraulic conductivity along coarser grained fill lifts.

No live flow or turbidity was noted and the seepage observed is normal for the time of year and reservoir elevation. No seepage was observed around the recently abandoned gravity outlet pipe discharge near the lower left side of the downstream face.

Instr.

There is no instrumentation and none is believed necessary at this time.